

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims

Claims 14-20 and 39-48. (canceled).

Claims 1-13, 21-38, 49 and 50. (canceled).

51. (currently amended): A method for management of a packaging supply chain, said packaging supply chain including flexible packaging materials and/or labels, comprising the steps of:

(a) entering digital data into a digital computer system, said digital data representing:

(i) a packaging design, wherein said packaging design comprises a graphic design to be displayed on a packaging item,

(ii) a packaging product design, wherein said packaging product design which comprises a said packaging design and the structure of said packaging item, including at least one of the materials used to make said packaging item, and

(iii) a packaging order which comprises a specified quantity of a—said packaging item for delivery on a specified date to an end user, said packaging item comprising said packaging product design; and

(b) processing said digital data representing said packaging design with said digital computer system to create metadata; and

~~(b)~~(c) analyzing said digital data and said metadata with said digital computer system to return a digital output having the information required to fulfill said packaging order.

52. (previously presented): The method of claim 51, wherein said digital data entered into said digital computer system further includes the production resources necessary to produce said packaging item.

53. (previously presented): The method of claim 51, wherein said digital data entered into said digital computer system further includes the availability of production resources necessary to produce said packaging item.
- 54-55. (canceled)
56. (currently amended): The method of claim ~~55~~51, wherein said metadata comprises extracted data about said packaging design, said extracted data selected from the group consisting of printing colors, ink coverage, process difficulty, bounce, image dimension, and combinations thereof.
57. (currently amended): The method of claim ~~55~~51, wherein said metadata is used to create said packaging product design.
58. (canceled).
59. (currently amended): The method of claim ~~58~~51, wherein said digital output comprises at least one of:
- (a) at least one of (i) production configuration, (ii) a bill of materials, and (iii) routing for said packaging item;
 - (b) a packaging order;
 - (c) a commitment of Available To Promise;
 - (d) a confirmation of acceptance of said packaging order;
 - (e) a materials requirements list based upon acknowledgement of said packaging order;
 - (f) a notification to suppliers of at least one of (i) the requirements for materials and/or services, (ii) a transfer of said requirements to the purchasing systems, (iii) materials and/or services orders from said suppliers, and (iv) the status of said materials and/or services orders;
 - (g) a production schedule;
 - (h) a confirmation of said packaging order status to said end user; and
 - (i) the control of access to the digital data in the networked environment.

60. (previously presented): The method of claim 51, wherein said digital computer system is accessible by a network shared by members of said packaging supply chain.
61. (previously presented): The method of claim 60, wherein said network is the internet.
62. (previously presented): The method of claim 61, wherein said digital data representing said packaging product design are entered into said digital computer system using the internet.
63. (previously presented): The method of claim 61, wherein said digital data representing said packaging order are entered into said digital computer system using the internet.
64. (previously presented): The method of claim 61, wherein said digital data representing said availability of production resources are entered into said digital computer system using the internet.
65. (previously presented): The method of claim 64, wherein said digital data representing said availability of production resources are stored and managed in capacity buckets.
66. (previously presented): The method of claim 65, wherein said production resources are selected from the group consisting of production line availability, services, material supplies, and combinations thereof.
67. (previously presented): The method of claim 51 wherein said packaging item is created by:
 - (a) creation of an item skeleton by said end user, said item skeleton comprising an image and a package structure; and
 - (b) addition of detail to said item skeleton by a converter, said detail comprising at least one of (i) production configuration, (ii) a bill of materials, and (iii) routing.

68. (currently amended): The method of claim ~~55~~51, wherein:
- (a) said metadata is used to define the resource requirements necessary to produce said packaging item;
 - (b) said packaging order is automatically slotted to a production resource based on the capability of said production resource to produce said packaging item ordered; and
 - (c) said specified date and said specified quantity of said packaging order are electronically compared to the projected production resources availability for purposes of acceptance of said packaging order.
69. (currently amended): A computer system for management of a packaging supply chain, said packaging supply chain including flexible packaging materials and/or labels, comprising:
- (a) a storage means programmed to store digital data, said digital data representing,
 - (i) a packaging design, wherein said packaging design comprises a graphic design to be displayed on a packaging item,
 - (ii) a packaging product design, wherein said packaging product design which comprises a said packaging design and the structure of said packaging item, including at least one of the materials used to make said packaging item, and
 - (iii) a packaging order which comprises a specified quantity of a—said packaging item for delivery on a specified date to an end user, said packaging item comprising said packaging product design; and
 - (b) a means for processing said digital data representing said packaging design with said digital computer system to create metadata; and
 - ~~(b)~~(c) a means for analyzing said digital data and said metadata with said digital computer system to return a digital output having the information required to fulfill said packaging order.
70. (previously presented): The computer system of claim 69, wherein said digital data further includes the production resources necessary to produce said packaging design.

71. (previously presented): The computer system of claim 69, wherein said digital data further includes the availability of production resources necessary to produce said packaging item.
- 72-73. (canceled).
74. (currently amended): The computer system of claim ~~73~~69, wherein said metadata comprises extracted data about said packaging design, said extracted data selected from the group consisting of printing colors, ink coverage, process difficulty, bounce, image dimension, and combinations thereof.
75. (currently amended): The computer system of claim ~~73~~69, wherein said metadata is used to create said packaging product design.
76. (canceled).
77. (currently amended): The computer system of claim ~~69~~76, wherein said digital output comprises at least one of:
 - (a) at least one of (i) production configuration, (ii) a bill of materials, and (iii) routing for said packaging item;
 - (b) a packaging order;
 - (c) a commitment of Available To Promise;
 - (d) a confirmation of acceptance of said packaging order;
 - (e) a materials requirements list based upon acknowledgement of said packaging order;
 - (f) a notification to suppliers of at least one of (i) the requirements for materials and/or services, (ii) a transfer of said requirements to the purchasing systems, (iii) materials and/or services orders from said suppliers, and (iv) the status of said materials and/or services orders;
 - (g) a production schedule;
 - (h) a confirmation of said packaging order status to said end user; and
 - (i) the control of access to the digital data in the networked environment.

78. (previously presented): The computer system of claim 69, wherein said computer system is capable of being accessed by a network shared by members of the packaging supply chain.
79. (previously presented): The computer system of claim 78, wherein said network is the internet.
80. (previously presented): The computer system of claim 79, wherein said computer system is capable of receiving said digital data representing said packaging product design from the internet.
81. (previously presented): The computer system of claim 79, wherein said computer system is capable of receiving said digital data representing said packaging order from the internet.
82. (previously presented): The computer system of claim 79, wherein said computer system is capable of receiving said digital data representing said availability of production resources from the internet.
83. (previously presented): The computer system of claim 82, wherein said computer system is programmed to store and manage said digital data representing said availability of production resources in capacity buckets.
84. (previously presented): The computer system of claim 83, wherein said production resources are selected from the group consisting of production line availability, services, material supplies and combinations thereof.
85. (previously presented): The computer system of claim 69, wherein said computer system is programmed to create said packaging item by:
 - (a) storing an item skeleton comprising an image and a package structure acquired from an end user; and

- (b) adding detail to said item skeleton, said detail comprising at least one of (i) production configuration, (ii) a bill of materials, and (iii) routing, acquired from a converter.
86. (previously presented): The computer system of claim 69, wherein:
- (a) said computer system is programmed to use metadata to define resource requirements necessary to produce said packaging item;
 - (b) said computer system is programmed to automatically slot said packaging order for said packaging item to a production resource based on the capability of said production resource to produce said packaging item ordered; and
 - (c) said computer system is programmed to compare said specified date and said specified quantity of said packaging order to the projected production resources availability for purposes of acceptance of said packaging order.
87. (previously presented): The computer system of claim 69, wherein said computer system is programmed to schedule a plurality of accepted packaging orders using decision support tools that provide immediate feedback on the impact of (a) adding a packaging order to a schedule, (b) moving a packaging order within a schedule, or (c) deleting a packaging order from a schedule.
88. (previously presented): The computer system of claim 87, wherein said computer system is programmed to add, move, and delete a packaging order by drag and drop functionality.
89. (previously presented): The computer system of claim 88, wherein said computer system is programmed to maintain multiple alternative schedules for producing said plurality of accepted packaging orders.
90. (previously presented): The computer system of claim 69, wherein said computer system is programmed to (a) link schedules for successive steps in the manufacturing process to one another, (b) provide immediate feedback on the impact of adding, moving, or deleting a packaging order, and (c) provide the effect of said impact on subsequent steps in the production process.

91. (previously presented): The computer system of claim 69, wherein said digital data further comprises the requirements for materials and/or services necessary to produce said packaging item.
92. (previously presented): The computer system of claim 91, wherein said computer system is capable of providing access to said digital data representing said requirements for materials and/or services necessary to produce said packaging item, said access being provided to materials and/or services suppliers.